| | | |
|---|---|---|
| *letterpress printing, screen printing, roller coating, spray printing, and litho-printing.* | | *printing, roller coating, spray printing, and litho-printing.* |
| *15. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a micro-chip and an associated circuit board antenna or an associated wire antenna.* | 1987 Oakwood Series 6 Brochure | "micro-chip and an associated circuit board antenna or an associated wire antenna" – Sharinn Ex. 10, OS6B at 4, see text under heading "Machine Reading Applications".<br><br>*This reference fails to disclose a process as recited in claim 1, "wherein electronic element is a micro-chip and an associated circuit board antenna."* |
| *16. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a read/write integrated chip and an associated antenna.* | 1987 Oakwood Series 6 Brochure | "read/write integrated chip and an associated antenna" – Sharinn Ex. 10, OS6B at 4, see text under heading "Machine Reading Applications".<br><br>*This reference fails to disclose a process as recited in claim 1, "wherein electronic element is a read/write chip and an associated antenna."* |

**Invalidity Claim Chart**
**in Support of**
**Oberthur's Summary Judgment Motion for Invalidity**

**U.S. Pat. No. 6,214,155**

**Reference Key:**
- 1987 Oakwood Series 6 Brochure ("OS6B")
- 1987 Oakwood Sales Brochure ("OSB")
- 1991 Oakwood Series 6 Instruction Manual ("OIM")

| **Claims** (missing claim elements are highlighted in green) | **Prior Art** | **Application of Prior Art** (missing claim elements are highlighted in green) |
|---|---|---|
| *1. A process for incorporating at least one electronic element in the manufacture of a plastic card, comprising the steps of:* | 1987 Oakwood Series 6 Brochure | "electronic element" – inductive codings or microchip (Sharinn Ex. 10, OS6B at 4, see illustration and text under heading "Machine Reading Applications").<br>*This reference does not disclose an electronic element.*<br>See the '207 patent, claim 1, preamble for explanation.<br>*This reference does not teach how to incorporate an electronic element in the manufacture of a plastic card*<br>• See '207 patent, claim 1. |
| *(a) providing first and second plastic core sheets;* | 1987 Oakwood Series 6 Brochure | "first and second plastic core sheets" – second opaque plastic layer and substrate beneath inductive codings (Sharinn Ex.10, OS6B at 4, see illustration). |
| *(b) positioning said at least one electronic element in the absence of a non-electronic carrier directly between said first and second plastic core* | 1987 Oakwood Series 6 Brochure | "positioning …" – inductive codings are illustrated as being positioned between second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration). |

| | | |
|---|---|---|
| *sheets to form a core, said plastic core sheets defining a pair of inner and outer surfaces of said core;* | 1987 Oakwood Series 6 Brochure | "in the absence of a non-electronic carrier" – inductive codings are illustrated with no protection (Sharinn Ex. 10, OS6B at 4, see illustration).<br><br>*This reference does not teach positioning an electronic element "in the absence of a non-electronic carrier"*<br><br>• There is no evidence that the illustration cited in this reference does not include a cavity or protective layer for protecting the inductive codings from heat and pressure during the lamination process.<br><br>• The conclusory statements provided by Oberthur are not sufficient to show that this illustration discloses this claim element.<br><br>• The picture alone is insufficient to enable a person having ordinary skill in the art to laminate a card in such a way. |

| | | |
|---|---|---|
| | 1987 Oakwood Series 6 Brochure | "directly" – inductive codings are in immediate physical contact with second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration).<br><br>*This reference also does not teach positioning an electronic element "directly between said first and second plastic core sheets"*<br><br>• Again, there is no evidence to show that the illustration cited in this reference positions the inductive codings directly between plastic core sheets.<br><br>• The conclusory statements provided by Oberthur are not sufficient to show that this illustration discloses this claim element.<br><br>• The picture alone is insufficient to enable a person having ordinary skill in the art to laminate a card in such a way. |
| | 1987 Oakwood Series 6 Brochure | "core" – second opaque plastic layer, inductive codings and substrate form the "core"(Sharinn Ex. 10, OS6B at 4, see illustration). |
| | 1987 Oakwood Series 6 Brochure | "a pair of inner and outer surfaces of said core" – outside surface of second opaque plastic layer and outside surface of substrate are illustrated (Sharinn Ex. 10, OS6B at 4, see illustration). |

| | | |
|---|---|---|
| *(c) positioning said core in a laminator apparatus, and subjecting said core to a heat and pressure cycle, said heat and pressure cycle comprising the steps of:* | 1987 Oakwood Series 6 Brochure | "positioning said core in a laminator apparatus" – second opaque plastic layer, inductive codings and substrate can be positioned in the Series 6 laminator: "Many of the more sophisticated cards are made possible due only to the flexibility of the heat and pressure system which is a major feature of the Series 6 Laminators." (Sharinn Ex. 10, OS6B at 3, 4 see illustration). |
| | 1987 Oakwood Series 6 Brochure | "heat and pressure cycle" – "[h]eat and pressure are applied" to second opaque plastic layer, inductive codings and substrate (Sharinn Ex. 10, OS6B at 3). |
| *(i) heating said core for a first period of time;* | 1987 Oakwood Series 6 Brochure | "heating said core for a first period of time" – "P.V.C. Temp." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference teaches applying a pressure phase first*<br>• See '207 patent, claim 1, element (c)(i). |

| | | |
|---|---|---|
| *(ii) applying a first pressure to said core for a second period of time such that said at least one electronic element is encapsulated by said core;* | 1987 Oakwood Sales Brochure | "applying a first pressure … for a second period of time" – "P.V.C. Press." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference teaches applying a pressure phase first, then applying a heating phase*<br>• See '207 patent, claim 1, element (c)(ii).<br>*This reference also teaches encapsulating an electronic element during the heating phase, not during the pressure phase*<br>• See '207 patent, claim 1, element (c)(ii). |
| | 1987 Oakwood Series 6 Brochure | "electronic element is encapsulated by said core" – during lamination inductive codings are enclosed by second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration).<br>*The illustration cited in this reference fails to disclose anything about encapsulation of the electronic element*<br>• See '207 patent, claim 1, element (c)(ii). |
| *(iii) cooling said core while applying a second pressure to said core,* | 1987 Oakwood Series 6 Brochure | "cooling … while applying a second pressure" – "P.V.C. Temp." and "P.V.C. Press." curves of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram). |
| *(d) applying a layer of overlaminate film to at least one of said outer surfaces of said core.* | 1987 Oakwood Series 6 Brochure | "overlaminate film" – bottom plastic opaque layer (Sharinn Ex. 10, OS6B at 4, see illustration). |
| | 1991 Oakwood Instruction Manual | Sharinn Ex. 12, OIM at 1 ¶ 1 ("Combine some of these components with customized printed core and overlay materials…"). |
| *2. The process for* | 1987 Oakwood | "first and second laminating plates" – "The |

| | | |
|---|---|---|
| *incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said laminator apparatus has first and second laminating plates, at least one of said first and second laminating plates having a matte finish for creating a textured surface on at least one of said outer surfaces of said core* | 6 Brochure | card sets to be laminated are inserted between stainless steel laminating plates and inserted into the machine on the laminating tray." (Sharinn Ex. 12, OS6B at 3).<br><br>*This reference does not disclose the finish of laminating plates nor does it teach the texture of the surface of the resulting laminated core*<br><br>• See '207 patent, claim 2. |
| *4. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said first and second plastic core sheets are made from a material selected from the group consisting of polyvinyl chloride, polyester, and acrylonitrile-butadiene styrene, each of said sheets having a thickness in the range of 0.007 to 0.024 inch.* | 1987 Oakwood Series 6 Brochure | "polyvinyl chloride" – second opaque plastic layer and substrate beneath inductive codings are made of plastic (P.V.C.) (Sharinn Ex. 10, OS6B at 3, 4, see illustration).<br><br>*This reference fails to teach a process where the plastic core sheets are made of a material selected from the group consisting of polyvinyl chloride, polyester, and acrylonitrile-butadiene.*<br><br>*This reference fails to disclose a thickness range of plastic sheets to be used*<br><br>• See '207 patent, claim 4. |
| *6. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said second pressure is greater than said first pressure.* | 1987 Oakwood Sales Brochure | "said second pressure is greater than said first pressure" – "P.V.C. Press." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram). |
| *7. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 6, wherein said second pressure is at least approximately 25% greater than said first pressure.* | 1987 Oakwood Sales Brochure | "said second pressure is at least approximately 25% greater than said first pressure" – "P.V.C. Press." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br><br>*This reference fails to indicate whether the second pressure is at least 25% greater* |

| | | |
|---|---|---|
| | | *than said first pressure*<br>• See '207 patent, claim 7. |
| *8. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said core is heated in step (c)(i) to a temperature in the range of 275.degrees. F. to 400.degrees. F. and said first period of time is at least five (5) minutes.* | 1991 Oakwood Instruction Manual | "temperature in the range of 275.degrees. F. to 400.degrees. F." – unpatentable modification of prior art temperatures ("LAMINATING TEMPERATURE 90 – 200 DEGREES C" (Sharinn Ex. 12,OIM at 6, 3.3B)). |
| | 1987 Oakwood Sales Brochure | "P.V.C. Temp." curve of the "Typical Lamination Cycles" diagram and horizontal axis of diagram indicating time in minutes ("Mins") (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference fails to identify the length of time at which the temperature is held*<br>• See '207 patent, claim 8. |
| *11. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a micro-chip and an associated wire antenna.* | 1987 Oakwood Sales Brochure | "micro-chip and an associated wire antenna" – Sharinn Ex. 10,OS6B at 4, see text under heading "Machine Reading Applications".<br>*This reference fails to disclose a process as recited in claim 1, "wherein electronic element is a micro-chip and an associated wire antenna."* |
| *12. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a microchip and an associated circuit board antenna.* | 1987 Oakwood Series 6 Brochure | "micro-chip and an associated circuit board antenna" – Sharinn Ex. 10, OS6B at 4, see text under heading "Machine Reading Applications".<br>*This reference fails to disclose a process as recited in claim 1, "wherein electronic element is a micro-chip and an associated circuit board antenna."* |
| *13. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic* | 1987 Oakwood Series 6 Brochure | "read/write integrated chip and an associated antenna" – Sharinn Ex. 10, OS6B at 4, see text under heading "Machine Reading Applications".<br>*This reference fails to disclose a process as* |

| | | |
|---|---|---|
| *element is a read/write integrated chip and an associated antenna.* | | *recited in claim 1, "wherein electronic element is a read/write chip and an associated antenna."* |
| *14. A plastic card constructed in accordance with claim 1.* | 1987 Oakwood Series 6 Brochure | "plastic card" – card set illustrated in OS6B on p. 4. (Sharinn Ex. 10). |
| *15. A hot lamination process for the manufacture of plastic cards, said process comprising the steps of:* | 1987 Oakwood Sales Brochure | "A hot lamination process for the manufacture of plastic cards" – "Oakwood has developed a unique lamination cycle for the highest quality bank and credit card manufacturing producing a well laminated structure …. The temperature of all platens is controlled individually to provide uniform heating throughout the press." (Sharinn Ex. 11, OSB at 6). |
| *(a) providing first and second plastic core sheets;* | 1987 Oakwood Series 6 Brochure | "first and second plastic core sheets" - second opaque plastic layer and substrate beneath inductive codings (Sharinn Ex. 10, OS6B at 4, see illustration). |
| *(b) positioning at least one electronic element in the absence of a non-electronic carrier directly between said first and second plastic core sheets to form a layered core;* | 1987 Oakwood Series 6 Brochure | "positioning …" – inductive coils are illustrated as being positioned between second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration). |
| | 1987 Oakwood Series 6 Brochure | "electronic element" – inductive codings or microchip (Sharinn Ex. 10, OS6B at 4, see illustration and text under heading "Machine Reading Applications").<br><br>*This reference does not disclose an electronic element.*<br><br>• See the '207 patent, claim 1, preamble for explanation. |

| | | |
|---|---|---|
| | 1987 Oakwood Series 6 Brochure | "in the absence of a non-electronic carrier" – inductive codings are illustrated with no protection (Sharinn Ex. 10, OS6B at 4, see illustration).<br><br>*This reference does not teach positioning an electronic element "in the absence of a non-electronic carrier"*<br><br>• There is no evidence that the illustration cited in this reference does not include a cavity or protective layer for protecting the inductive codings from heat and pressure during the lamination process.<br><br>• The conclusory statements provided by Oberthur are not sufficient to show that this illustration discloses this claim element.<br><br>• The picture alone is insufficient to enable a person having ordinary skill in the art to laminate a card in such a way. |

| | | |
|---|---|---|
| | 1987 Oakwood Series 6 Brochure | "directly" – inductive coils are in immediate physical contact with second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration).<br><br>*This reference also does not teach positioning an electronic element "directly between said first and second plastic core sheets"*<br><br>• Again, there is no evidence to show that the illustration cited in this reference positions the inductive codings directly between plastic core sheets.<br><br>• The conclusory statements provided by Oberthur are not sufficient to show that this illustration discloses this claim element.<br><br>• The picture alone is insufficient to enable a person having ordinary skill in the art to laminate a card in such a way. |
| | 1987 Oakwood Series 6 Brochure | "layered core" – second opaque plastic layer, inductive codings and substrate form the "core" (Sharinn Ex. 10, OS6B at 4, see illustration). |
| *(c) positioning said core in a laminator apparatus, and subjecting said core to a heat and pressure cycle, said heat and pressure cycle comprising the steps of:* | 1987 Oakwood Series 6 Brochure | "positioning said core in a laminator apparatus" – second opaque plastic layer, inductive codings and substrate can be positioned in the Series 6 laminator: "Many of the more sophisticated cards are made possible due only to the flexibility of the heat and pressure system which is a major feature of the Series 6 Laminators." (Sharinn Ex. 10, OS6B at 3, 4 see illustration). |

| | | |
|---|---|---|
| | 1987 Oakwood Series 6 Brochure | "heat and pressure cycle" – "heat and pressure are applied" to second opaque plastic layer, inductive codings and substrate (Sharinn Ex. 10, OS6B at 3). |
| *(i) heating said core in said laminator, in the presence of a minimal first ram pressure, to a temperature which causes controlled flow of said plastic which makes up said first and second plastic core sheets;* | 1987 Oakwood Sales Brochure | "heating said core" – "P.V.C. Temp." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram). |
| | 1987 Oakwood Sales Brochure | "minimal first ram pressure" – Sharinn Ex. 11, OSB at 6, see initial "P.V.C. Press." ramp up in illustration. |
| | 1991 Oakwood Instruction Manual | Sharinn Ex. 12, OIM at 6 ("Low pressure is applied to the material during the heating stage to achieve lamination."). "controlled flow of said plastic" – "Actual lamination will take place when the material has reached a molten stage at very low pressures." (Sharinn Ex. 12, OIM at 6). |
| *(ii) applying a second pressure uniformly across said core for encapsulating said at least one electronic element within said controlled flow plastic;* | 1987 Oakwood Sales Brochure | "applying a second pressure" – "P.V.C. Press." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram). *This reference does not teach applying a second pressure at the lamination temperature for encapsulating the electronic element* • See '207 patent, claim 16, element (c)(ii). *The second pressure taught by this reference is applied after encapsulation of the electronic element* • See '207 patent, claim 16, element (c)(ii). |

| | | |
|---|---|---|
| | 1987 Oakwood Sales Brochure | "uniformly across said core" – "Precise, uniform pressure distribution over the whole platan eliminating pressure losses at the edges and corners." (Sharinn Ex. 11, OSB at 1). |
| | 1987 Oakwood Series 6 Brochure | "encapsulating said at least one electronic element" – during lamination inductive codings are enclosed by second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration).<br>*The illustration cited in this reference does not teach a process of encapsulating the electronic element*<br>• See '207 patent, claim 16, element (c)(ii). |
| *(iii) subsequently cooling said core in conjunction with the concurrent application of a third pressure uniformly across said core, said core including and upper and lower surfaces.* | 1987 Oakwood Sales Brochure | "cooling . . . in conjunction with the concurrent application of a third pressure" – "P.V.C. Temp." and "P.V.C. Press." curves of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram). |
| | 1987 Oakwood Series 6 Brochure | "uniformly across said core" – "Precise, uniform pressure distribution over the whole platen eliminating pressure losses at the edges and corners." (Sharinn Ex. 11, OSB at 1). |
| *16. The method as recited in claim 15 wherein said first and second core layers are devoid of any appreciable cutouts* | 1987 Oakwood Series 6 Brochure | "first and second core layers are devoid of any appreciable cutouts" – second opaque plastic layer and substrate beneath the inductive codings (Sharinn Ex. 10, OS6B at 4, see illustration).<br>*This reference does not teach a configuration where core layers are devoid of cutouts*<br>• See '207 patent, claim 17. |

**Invalidity Claim Chart**
**in Support of**
**Oberthur's Summary Judgment Motion for Invalidity**

**U.S. Pat. No. 6,514,367**

**Reference Key:**
- 1987 Oakwood Series 6 Brochure ("OS6B")
- 1987 Oakwood Sales Brochure ("OSB")
- 1991 Oakwood Series 6 Instruction Manual ("OIM")

| **Claims** (missing claim elements are highlighted in green) | **Prior Art** | **Application of Prior Art** (missing claim elements are highlighted in green) |
|---|---|---|
| *1. A process for incorporating at least one electronic element in the manufacture of a plastic card, comprising the steps of* | 1987 Oakwood Series 6 Brochure | "electronic element" – inductive codings or microchip (Sharinn Ex. 10, OS6B at 4, see illustration and text under heading "Machine Reading Applications").<br>*This reference does not disclose an electronic element.*<br>See the '207 patent, claim 1, preamble for explanation.<br>*This reference does not teach how to incorporate an electronic element in the manufacture of a plastic card.*<br>• See '207 patent, claim 1. |
| *(a) providing first and second plastic core sheets:* | 1987 Oakwood Series 6 Brochure | "first and second plastic core sheets" - second opaque plastic layer and substrate beneath inductive codings (Sharinn Ex. 10, OS6B at 4, see illustration). |
| *(b) positioning said at least one electronic element in the absence of a non-electronic carrier directly between said* | 1987 Oakwood Series 6 Brochure | "positioning …" – inductive codings are illustrated as being positioned between second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration). |

| | | |
|---|---|---|
| *first and second plastic core sheets to form a core, said plastic core sheets defining a pair of inner and outer surfaces of said core;* | 1987 Oakwood Series 6 Brochure | "in the absence of a non-electronic carrier" – inductive codings are illustrated with no protection (Sharinn Ex. 10, OS6B at 4, see illustration).<br><br>*This reference does not teach positioning an electronic element "in the absence of a non-electronic carrier"*<br><br>• There is no evidence that the illustration cited in this reference does not include a cavity or protective layer for protecting the inductive codings from heat and pressure during the lamination process.<br><br>• The conclusory statements provided by Oberthur are not sufficient to show that this illustration discloses this claim element.<br><br>• The picture alone is insufficient to enable a person having ordinary skill in the art to laminate a card in such a way. |

| | | |
|---|---|---|
| | 1987 Oakwood Series 6 Brochure | "directly" – inductive codings are in immediate physical contact with second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration).<br><br>*This reference also does not teach positioning an electronic element "directly between said first and second plastic core sheets"*<br><br>• Again, there is no evidence to show that the illustration cited in this reference positions the inductive codings directly between plastic core sheets.<br><br>• The conclusory statements provided by Oberthur are not sufficient to show that this illustration discloses this claim element.<br><br>• The picture alone is insufficient to enable a person having ordinary skill in the art to laminate a card in such a way. |
| | 1987 Oakwood Series 6 Brochure | "core" – second opaque plastic layer, inductive codings and substrate form the "core" (Sharinn Ex. 10, OS6B at 4, see illustration). |
| | 1987 Oakwood Series 6 Brochure | "a pair of inner and outer surfaces of said core" – outside surface of second opaque plastic layer and outside surface of substrate are illustrated (Sharinn Ex. 10, OS6B at 4, see illustration). |
| *(c) positioning said core in a laminator apparatus, and subjecting said core to a heat and pressure cycle, said heat and pressure cycle comprising the steps of:* | 1987 Oakwood Series 6 Brochure | "positioning said core in a laminator apparatus" – second opaque plastic layer, inductive codings and substrate can be positioned in the Series 6 laminator: "Many of the more sophisticated cards are made possible due only to the flexibility of the heat and pressure system which is a major feature of the Series 6 Laminators." (Sharinn Ex. 10, OS6B at 3, 4 see illustration). |

| | | |
|---|---|---|
| | 1987 Oakwood Series 6 Brochure | "heat and pressure cycle" – "[h]eat and pressure are applied" to second opaque plastic layer, inductive codings and substrate (Sharinn Ex. 10, OS6B at 3). |
| *(i) heating said core for a first period of time;* | 1987 Oakwood Sales Brochure | "heating said core for a first period of time" – "P.V.C. Temp." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference teaches applying a pressure phase first*<br>• See '207 patent, claim 1, element (c)(i). |
| *(ii) applying a first pressure to said core for a second period of time, such that said at least one electronic element is encapsulated by said core;* | 1987 Oakwood Sales Brochure | "applying a first pressure … for a second period of time" – "P.V.C. Press." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference teaches applying a pressure phase first, then applying a heating phase*<br>*This reference also teaches encapsulating an electronic element during the heating phase, not the pressure phase*<br>• See '207 patent, claim 1, element (c)(ii). |
| *(iii) cooling said core while applying a second pressure to said core, the second pressure being at least 10% greater than the first pressure; and* | 1987 Oakwood Sales Brochure | "cooling … while applying a second pressure" – "P.V.C. Temp." and "P.V.C. Press." curves of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram). |

| | | |
|---|---|---|
| | 1987 Oakwood Sales Brochure | "said second pressure being at least 10% greater than said first pressure" – "P.V.C. Press." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference fails to indicate whether the second pressure is at least 10% greater than said first pressure*<br>• See '207 patent, claim 7. |
| *4. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said first and second plastic core sheets are made from a material selected from the group consisting of polyvinyl chloride, polyester, and acrylonitrile-butadiene-styrene, each of said sheets having a thickness in the range of 0.007 to 0.024 inch* | 1987 Oakwood Series 6 Brochure | "polyvinyl chloride" – second opaque plastic layer and substrate beneath inductive codings are made of plastic (P.V.C.) (Sharinn Ex. 10, OS6B at 3, 4, see illustration).<br>*This reference fails to teach a process where the plastic core sheets are made of a material selected from the group consisting of polyvinyl chloride, polyester, and acrylonitrile-butadiene*<br>*This reference fails to disclose a thickness range of plastic sheets to be used* |
| *7. A process as recited in claim 1 having a further step following step(c), said step comprising: positioning a layer of overlaminate film on at least one of said surfaces of said core, positioning said overlaminate film and said core in a laminator apparatus and laminating said layer of overlaminate film to said core in said laminator to thereby form a sheet of plastic card stock.* | 1987 Oakwood Series 6 Brochure | "overlaminate film" – second opaque plastic layer, inductive codings, substrate and bottom plastic opaque layer can be positioned in the Series 6 laminator (Sharinn Ex. 10, OS6B at 3, 4, see illustration). |
| | 1991 Oakwood Instruction Manual | OIM at 1 ¶ 1 ("Combine some of these components with customized printed core and overlay materials…"). |
| *8. The process of claim 7, further comprising the step of coating said at least one* | 1991 Oakwood Instruction Manual | "coating … with a layer of ink" – "Combine some of these components with customized printed core and overlay materials …" |

| | | |
|---|---|---|
| *surface of said core with a layer of ink prior to positioning said overlaminate film on said at least one surface of said core.* | | (Sharinn Ex. 12, OIM at 1 ¶ 1). |
| *9. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said core is heated in step (c)(i) to a temperature in the range of 275.degree. F. to 400.degree. F. and said first period of time is at least five (5) minutes* | 1991 Oakwood Instruction Manual | "temperature in the range of 275.degree. F. to 400.degree. F." – unpatentable modification of prior art temperatures ("LAMINATING TEMPERATURE 90 – 200 DEGREES C" (Sharinn Ex. 12, OIM at 6, ¶ 3.3B)). |
| | 1987 Oakwood Sales Brochure | "said first period of time is at least five (5) minutes" - "P.V.C. Temp." curve of the "Typical Lamination Cycles" diagram and horizontal axis of diagram indicating time in minutes ("Mins") (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference fails to identify the length of time at which the temperature is held*<br>• See '207 patent, claim 8. |
| *12. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein a coating step is carried out on at least one surface of said core utilizing a coating technique selected from the group consisting of silk screen printing, offset printing, letterpress printing, screen printing, roller coating, spray printing, and litho-printing.* | 1991 Oakwood Instruction Manual | "coating technique selected from the group consisting of …" – "Combine some of these components with customized printed core and overlay materials …." (Sharinn Ex. 12, OIM at 1, ¶ 1).<br>*This reference fails to disclose a process where the core is coated using a coating technique selected from the group consisting of silk screen printing, offset printing, letterpress printing, screen printing, roller coating, spray printing, and litho-printing.* |
| *16. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a micro-chip and an* | 1987 Oakwood Series 6 Brochure | "micro-chip and an associated circuit board antenna or an associated wire antenna" – Sharinn Ex. 10, OS6B at 4, see text under heading "Machine Reading Applications".<br>*This reference fails to disclose a process as recited in claim 1, "wherein electronic* |

| | | |
|---|---|---|
| associated circuit board antenna or an associated wire antenna. | | element is a micro-chip and an associated wire antenna."<br><br>This reference fails to disclose a process as recited in claim 1, "wherein electronic element is a micro-chip and an associated circuit board antenna." |
| *17. The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a read/write integrated chip and an associated antenna.* | 1987 Oakwood Series 6 Brochure | "read/write integrated chip and an associated antenna" – Sharinn Ex. 10, OS6B at 4, see text under heading "Machine Reading Applications".<br><br>This reference fails to disclose a process as recited in claim 1, "wherein electronic element is a read/write chip and an associated antenna." |
| *19. The process according to claim 1, wherein said core is heated in step (c)(ii).* | 1987 Oakwood Sales Brochure | "core is heated in step (c)(ii)" – "P.V.C. Temp." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram). |
| *20. A process for incorporating at least one electronic element in the manufacture of a plastic card, comprising the steps of:* | 1987 Oakwood Series 6 Brochure | "electronic element" – inductive codings or microchip (Sharinn Ex. 10, OS6B at 4, see illustration and text under heading "Machine Reading Applications").<br><br>This reference does not disclose an electronic element.<br><br>• See the '207 patent, claim 1, preamble.<br><br>This reference does not teach how to incorporate an electronic element in the manufacture of a plastic card<br><br>• See '207 patent, claim 1. |
| *(a) providing first and second plastic core sheets;* | 1987 Oakwood Series 6 Brochure | "first and second plastic core sheets" - second opaque plastic layer and substrate beneath inductive codings (Sharinn Ex. 10, OS6B at 4, see illustration). |

| | | |
|---|---|---|
| *(b) positioning said at least one electronic element in the absence of a non-electronic carrier directly between said first and second plastic core sheets to form a core, said plastic core sheets defining a pair of inner and outer surfaces of said core;* | 1987 Oakwood Series 6 Brochure | "positioning …" – inductive codings are illustrated as being positioned between second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration). |
| | 1987 Oakwood Series 6 Brochure | "in the absence of a non-electronic carrier" – inductive codings are illustrated with no protection (Sharinn Ex. 10, OS6B at 4, see illustration).<br><br>*This reference does not teach positioning an electronic element "in the absence of a non-electronic carrier"*<br><br>• There is no evidence that the illustration cited in this reference does not include a cavity or protective layer for protecting the inductive codings from heat and pressure during the lamination process.<br><br>• The conclusory statements provided by Oberthur are not sufficient to show that this illustration discloses this claim element.<br><br>• The picture alone is insufficient to enable a person having ordinary skill in the art to laminate a card in such a way. |

| | | |
|---|---|---|
| | 1987 Oakwood Series 6 Brochure | "directly" – inductive codings are in immediate physical contact with second opaque plastic layer and substrate (Sharinn Ex. 10, OS6B at 4, see illustration).<br><br>*This reference also does not teach positioning an electronic element "directly between said first and second plastic core sheets"*<br><br>• Again, there is no evidence to show that the illustration cited in this reference positions the inductive codings directly between plastic core sheets.<br><br>• The conclusory statements provided by Oberthur are not sufficient to show that this illustration discloses this claim element.<br><br>• The picture alone is insufficient to enable a person having ordinary skill in the art to laminate a card in such a way. |
| | 1987 Oakwood Series 6 Brochure | "core" – second opaque plastic layer, inductive codings and substrate form the "core" (Sharinn Ex. 10, OS6B at 4, see illustration). |
| | 1987 Oakwood Series 6 Brochure | "a pair of inner and outer surfaces of said core" – outside surface of second opaque plastic layer and outside surface of substrate are illustrated (Sharinn Ex. 10, OS6B at 4, see illustration). |

| | | |
|---|---|---|
| *(c) positioning said core in a laminator apparatus, and subjecting said core to a heat and pressure cycle, said heat and pressure cycle comprising the steps of:* | 1987 Oakwood Series 6 Brochure | "positioning said core in a laminator apparatus …" – second opaque plastic layer, inductive codings and substrate can be positioned in the Series 6 laminator: "Many of the more sophisticated cards are made possible due only to the flexibility of the heat and pressure system which is a major feature of the Series 6 Laminators." (Sharinn Ex. 10, OS6B at 3, 4 see illustration). |
| | 1987 Oakwood Series 6 Brochure | "heat and pressure cycle" – "[h]eat and pressure are applied" to second opaque plastic layer, inductive codings and substrate (Sharinn Ex. 10, OS6B at 3). |
| *(i) heating said core for a first period of time;* | 1987 Oakwood Sales Brochure | "heating said core for a first period of time" – "P.V.C. Temp." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference teaches applying a pressure phase first*<br>• See '207 patent, claim 1, element (c)(i). |
| *(ii) applying a first pressure to said core for a second period of time such that said at least one electronic element is encapsulated by said core;* | 1987 Oakwood Sales Brochure | "applying a first pressure … for a second period of time" – "P.V.C. Press." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference teaches applying a pressure phase first, then applying a heating phase*<br>• See '207 patent, claim 1, element (c)(ii)<br>*This reference also teaches encapsulating an electronic element during the heating phase, not during the pressure phase*<br>• See '207 patent, claim 1, element (c)(ii). |

| | | |
|---|---|---|
| *(iii) cooling said core while applying a second pressure to said core, the second pressure being at least 10% greater than the first pressure.* | 1987 Oakwood Sales Brochure | "cooling … while applying a second pressure" – "P.V.C. Temp." and "P.V.C. Press." curves of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram). |
| | 1987 Oakwood Sales Brochure | "said second pressure being at least 10% greater than said first pressure" – "P.V.C. Press." curve of the "Typical Lamination Cycles" diagram (Sharinn Ex. 11, OSB at 6, see diagram).<br>*This reference fails to indicate whether the second pressure is at least 10% greater than said first pressure*<br>• See '207 patent, claim 7. |